

PROPERTY PLANNING COMMON ELEMENTS

COMPONENTS OF MASTER PLANS

HABITATS AND THEIR MANAGEMENT

Bat Hibernacula

Bats are a vital part of many ecosystems. Bats are major consumers of agricultural and forest pests, and as predators of biting insects, bats may also play an important role in reducing risk of insect-borne diseases such as West Nile Virus. Cave bat populations in Wisconsin have been in rapid decline since 2014 due to a devastating fungal disease that causes extensive mortality in cave-dwelling bats, first discovered in New York in 2006. The fungal disease, known as white-nose syndrome (WNS), has caused the most precipitous decline of North American wildlife in recorded history. Since it was discovered, WNS has affected many species of cave-hibernating bats in the U.S. and Canada, causing declines approaching 100% in some populations. WNS poses a severe threat to all four of Wisconsin's cave bat species: big brown bat, little brown bat, northern long-eared bat, and eastern pipistrelle.

These species gather communally to hibernate in caves or cave-like structures such as cliffs, abandoned mines, tunnels, and sometimes buildings. Because many bat species form large, vulnerable aggregations at a limited number of locations during critical stages of their life cycle (i.e., winter hibernation and summer maternity colonies), populations are particularly sensitive to impacts and susceptible to decline. Additionally, low reproductive rates reduce the potential for population recovery. In northern latitudes of the United States bat species must hibernate for an extended period when food resources are limited. Some, but not all, underground caves and mines can provide the environmental conditions that hibernating bats need to survive this vulnerable portion of their life cycle. Hibernacula can be scarce in some areas and concentrated in others, and therefore a single suitable site can harbor large numbers of bats of multiple species, dispersing in summer over foraging grounds that cover more than a thousand square miles. Seasonal aggregation makes bats extremely susceptible to catastrophic events, but these congregations also provide opportunities to inventory, monitor, manage and protect a large proportion of these populations by focusing conservation and management efforts at these known sites.

Management Objectives

- Identify and protect or manage all bat hibernacula on DNR managed lands.

Management Prescriptions

- Do not transport any items between caves. This includes clothes, shoes, lights, cameras, or any other equipment that has been underground, including in another state.
- Follow WDNR [Decontamination Protocols for Preventing the Spread of White-nosed Syndrome in Bats](#) after visiting caves, mines, or other structures that may contain hibernating bats.
- Do not enter caves, mines, or other structures where bats are known to hibernate from October through May. Even quiet activities may disturb hibernating bats.



- Follow current U.S. Fish and Wildlife Service (USFWS) avoidance guidance for northern long-eared bat, including:
 - Activities that alter a known hibernaculum's entrance or interior environment may be prohibited by USFWS rule if the alteration impairs an essential behavioral pattern of hibernating northern long-eared bats.
 - Restrict tree-removal activities within 0.25 mile of known entrances.
 - Follow the [NHI Screening Guidance for Northern Long-eared Bat in Wisconsin](#) document.
- Where applicable, control human access to hibernacula by installing bat-friendly gates that allow access for bats and limit liability concerns for property managers.
- In instances where controlled access (i.e., gating) is not applicable, sites should be posted with interpretive signage that displays decontamination and seasonal cave closure information.
- Remove invasive plant species that are within 500 feet of any known hibernaculum entrance, especially common burdock, as this plant can mortally trap or wound swarming bats.
- When using prescribed fire in proximity of bat hibernacula, consider fire frequency, timing, location, intensity, and smoke management to avoid impacting bats during fall swarm, spring emergence, or while in hibernation.

